

Appl. No. : 10/827,101
Filed : April 19, 2004

REMARKS

The claim amendments and remarks herein are responsive to the Examiner's Office Action dated May 19, 2005. Applicant appreciates the Examiner indicating the allowability of Claims 19-24, as well as Claim 8 if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Applicant has amended Claims 1, 12, and 25 to more clearly claim the invention. Claim 8 has been canceled without prejudice. New dependent claims have been added as Claims 34 to 50. No new matter has been added. Claims 1, 3-7, 9-29, 31-50 are currently pending.

Allowable Subject Matter

Applicant has amended Claim 1 to incorporate the subject matter of Claim 8 as follows:

A method for stabilizing a portion of the spine, comprising the steps of:

accessing a first bony surface on a first vertebra, wherein the first vertebra comprises a vertebral body and at least one bony process;

accessing a second bony surface on a second vertebra, wherein the second vertebra comprises a vertebral body and at least one bony process; and

affixing the first bony surface and the second bony surface with an adhesive medium;

wherein the first bony surface and second bony surface of the affixing step comprise a zygapophyseal joint and wherein the affixing step comprises minimally invasively joining the first bony surface and the second bony surface and preserves the cortical bone about the first bony surface and second bony surface.

Because Claim 1 as amended includes the limitation wherein the first bony surface and the second bony surface comprise a zygapophyseal joint, Applicant submits that Claim 1 as indicated by the Examiner is patentable. In addition, Claims 3-7, 9-11 and 39-41 depend either directly or indirectly from Claim 1. Claims 3-7, 9-11 and 39-41 are each patentable for at least the reasons that Claim 1 is patentable, and are also patentable for the unique combination of features that each claim recites.

With respect to allowable Claims 19-24, Applicant has added new Claims 45-50 which depend either directly or indirectly from Claim 19. Claims 45-50 are each patentable for at least the reasons that Claim 19 is patentable, and are also patentable for the unique combination of features that each claim recites.

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Claim rejections under 35 U.S.C. § 102.

Claims 12-15, 25-27 and 31-33 stand rejected under 35 U.S.C. § 102 as being anticipated by Mandarin (US 3,030,951). The Examiner noted that "Mandarin discloses posterior and anterior spinal fusion by injecting a polyurethane polymer that polymerizes or 'undergoes a chemical transformation' to cement the bony surfaces of adjacent vertebrae." Accordingly, Claim 12 has been amended as follows:

A method for treating a patient, comprising the steps of:

accessing a first bony portion of a first vertebra, wherein the first bony portion is posterior to the vertebral body of the first vertebra;

accessing a second bony portion of a second vertebra, wherein the second bony portion is posterior to the vertebral body of the second vertebra;

engaging the first bony portion and the second bony portion with a medium at least at a zygapophyseal joint between the first bony surface and the second bony surface;
and

fixing the relative orientation between the first vertebra and the second vertebra by permitting physical or chemical transformation of the medium; wherein

the engaging step comprises minimally invasively joining the first bony portion and the second bony portion.

Claim 25 has also been amended to recite:

A method of treating a spine, comprising the steps of:

minimally invasively accessing a zygapophyseal joint between adjacent vertebrae, the adjacent vertebrae comprising a superior vertebra with at least one inferior articular process and a inferior vertebra with a vertebral body and at least one superior articular process,

wherein at least one inferior articular process of the superior vertebra corresponds to a superior articular process of the inferior vertebra; and

positioning the adjacent vertebra from a first spatial orientation to a second spatial orientation; and

securing the adjacent vertebrae in the second spatial orientation by engaging at least one superior articular process of one of the two adjacent vertebrae with the corresponding inferior articular process of the other of the two adjacent vertebrae using a medium at the zygapophyseal joint between the at least one superior articular process and the corresponding inferior articular process.

Because Claims 12 and 25 as amended include a limitation to engage or secure vertebrae at a zygapophyseal joint, it is respectfully submitted that the claims are not anticipated by the

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prior art and Applicant respectfully requests withdrawal of the rejection of Claims 12 and 25. Similarly, Claims 13-18, 39-41 and 26-38 that depend from Claims 12 and 25 are each patentable for at least the reasons that Claims 12 and 25 are patentable, and are also patentable for the unique combination of features that each claim recites.

Claim rejections under 35 U.S.C. § 103.

Claims 12-15, 25-27 and 31-33 were also rejected as being unpatentable over Mandarino in view of Foley, et al. (US 5,902,231). The Examiner noted that "Mandarino discloses all elements of the claimed invention except for performing the procedure in a minimally invasive manner using a cannula or tubular introducer" while "Foley et al. teach percutaneous minimally invasive surgery for all applications and procedures using a working channel such as a cannula". However, neither Mandarino nor Foley et al. disclose engaging or securing two vertebrae at a zygapophyseal joint, as provided in amended Claims 12 and 25. For at least this reason, Applicant contends that Claims 12 and 25 are nonobvious over the combination of Mandarino and Foley et al, and respectfully request withdrawal of the rejections of Claims 12 and 25, as well as Claims 13-18, 39-41 and 26-38 that depend from Claims 12 and 25.

Information Disclosure Statement

PTO/SB/08 Equivalent is enclosed, listing 10 references that are of record in U.S. Patent Application No. 10/041,652, filed December 28, 2001, issued as U.S. Patent No. 6,723,095 B2, which is the parent of this patent application, and is relied upon for an earlier filing date under 35 U.S.C. § 120. Copies of the references are not submitted pursuant to 37 C.F.R. § 1.98(d). As noted in the Manual of Patent Examining Procedure, Section 609, "[t]he Examiner will consider information which has been considered by the Office in a parent application filed under 37 CFR 1.53(b)... A listing of the information need not be resubmitted in the continuing application unless the applicant desires the information to be printed on the patent." Although it is presumed that the Examiner has reviewed all the references of record in the parent application, for purposes of completeness and so these references are printed on the patent, the attached Information Disclosure Statement is also submitted.

This Information Disclosure Statement is being filed before the mailing date of a final action and before the mailing of a Notice of Allowance. This Statement is accompanied by the

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fees set forth in 37 C.F.R. § 1.17(p). The Commissioner is hereby authorized to charge any additional fees which may be required or to credit any overpayment to Account No. 11-1410.

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CONCLUSIONS

For all the foregoing reasons, Applicant respectfully submits that all of the Examiner's rejections have been overcome and earnestly requests an allowance of all pending claims. Applicants have endeavored to respond to each of the issues raised by the Examiner. If there are any claims that the Examiner does not find to be allowable or if there remain any unresolved issues that could be resolved via a telephone conference, Applicant ardently invites the Examiner to initiate the telephone conference call with Applicant's representative at the telephone number shown below to expedite the allowance of this application. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 6/7/05

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